(amended) PATENT CLAIMS

1. A fired ceramic moulded body, made of a composition which comprises at least one purely magnesitic component and at least one component containing CaO, all in a grain size < 8 mm which has the following oxidic analysis:

   a) 50 to 90 % by weight MgO,
   b) 8 to 40 % by weight CaO,
   c) 1 to 8 % by weight Fe_2O_3,
   d) up to 10 % by weight others,

   the sum total of a) to d) being 100 % by weight, providing, after firing, a test value $T_{0.5}$ according to DIN EN 993-8 (1997) of between 1,400 and 1,700 °C.

2. Moulded body according to claim 1 with a raw density of > 3 g/cm^3.

3. Moulded body according to claim 1 with an open porosity of < 14 % by volume.

4. Moulded body according to claim 1 in which the purely magnesitic component has a degree of purity of > 90 % by weight MgO.

5. Process for the production of a fired ceramic, Fe_2O_3 comprising moulded body, with a test value $T_{0,5}$ according to DIN EN 993-8 (1997) of between 1400 °C and 1700 °C, according to which a composition is used, comprising at least one purely magnesitic and at least one component containing CaO, all in a grain size of < 8 mm and which has the following oxidic analysis:

   a) 50 to 90 % by weight of MgO,
   b) 8 to 40 % by weight of CaO,
   c) 1 to 8 % by weight of Fe_2O_3,

amended

the total sum of a) to d) being 100 %, and forming dicalciumferrite as a secondary phase after firing at a temperature > 1400°C.

6. Process according to claim 5 in which at least one CaO-containing component of the composition has a grain size of > 2 mm.

7. Process according to claim 5 in which at least one CaO-containing component of the composition has a grain size of < 5 mm.

8. Process according to claim 5 in which the MgO-containing component of the composition with a degree of purity of > 90 % by weight has a grain size of < 5 mm.

9. Process according to claim 5 in which the MgO-containing component of the composition with a degree of purity of > 90 % by weight has a grain size of < 2 mm.

10. Process according to claim 5 in which the MgO-containing component of the composition with a degree of purity of > 90 % by weight has a grain size of < 0.3 mm.

11. Process according to claim 5 in which the mean grain size (d_{50}) of the CaO-containing component of the composition is greater than the mean grain size (d_{50}) of the MgO-containing component of the composition with a degree of purity > 90 % by weight.

amended

12. Process according to claim 5 in which the grain size (d_{95}) of the CaO-containing component of the composition is greater than the grain size (d_{95}) of the MgO-containing component of the composition with a degree of purity of > 90 % by weight.

13. Process according to claim 5 in which at least one CaO-containing component of the composition has a grain size of < 1 mm.

14. Process according to claim 5 in which at least one CaO-containing component of the composition has a grain size of < 0.3 mm.

15. Process according to claim 5 with a Fe_2O_3 content of the composition of > 1.5 % by weight.

16. Process according to claim 5 with a Fe_2O_3 content of the composition of > 2 % by weight.

17. Process according to claim 5 with a proportion of an MgO-CaO fused grain component in the composition.

18. Process according to claim 5 in which the oxidic analysis of the composition exhibits at least one of the following oxides: MnO, TiO_2, ZrO_2, SiO_2.

19. Process according to claim 5, in which the purely magnesitic component has a degree of purity of > 90 % by weight.

20. Use of a moulded body according to claim 1 for lining of a rotary kiln.